

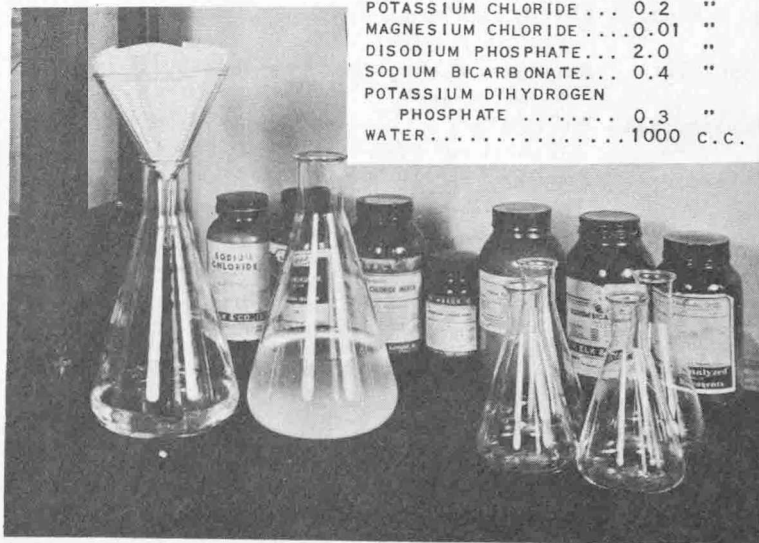
IDEA EXCHANGE

● THE PREPARATION OF MODIFIED BOECK AND DRBOHLAV'S MEDIUM

1

LOCKE'S SOLUTION

SODIUM CHLORIDE.....	8.0 GRAMS
CALCIUM CHLORIDE.....	0.2 "
POTASSIUM CHLORIDE...	0.2 "
MAGNESIUM CHLORIDE...	0.01 "
DISODIUM PHOSPHATE...	2.0 "
SODIUM BICARBONATE...	0.4 "
POTASSIUM DIHYDROGEN PHOSPHATE	0.3 "
WATER.....	1000 C.C.

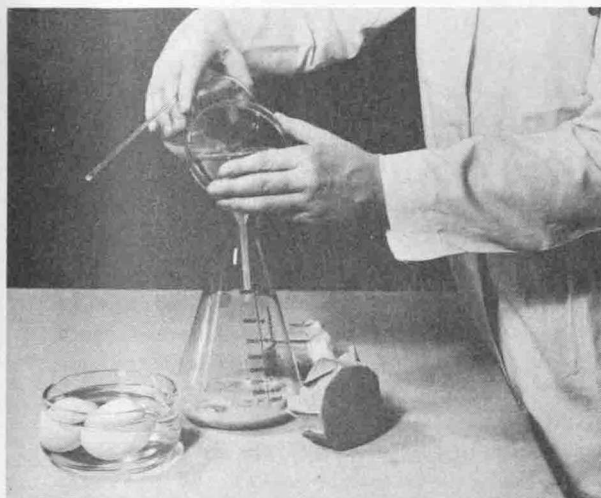


Modified Locke's solution is prepared according to the formula shown in photograph. The chemicals are added to the water in the order given, then heated to 100° C (Arnold.) for 20 minutes to precipitate. After cooling to room temperature and filtering through paper, it is dispensed in about 100cc. amounts in small Erlenmeyer flasks, plugged, and sterilized in the autoclave at 121.6°C. for 15 minutes.

2

Fresh eggs are washed with soap and water and rinsed in 70 percent alcohol.

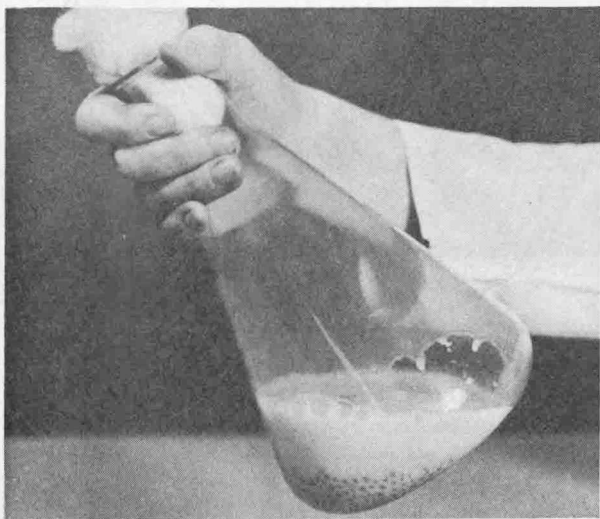




3 They are broken carefully into a beaker and transferred to a flask containing beads. Four eggs measure about 180 cc.



4 Locke's solution is added to the eggs in the proportion of 50 cc. of Locke's to 180 cc. of whole egg.



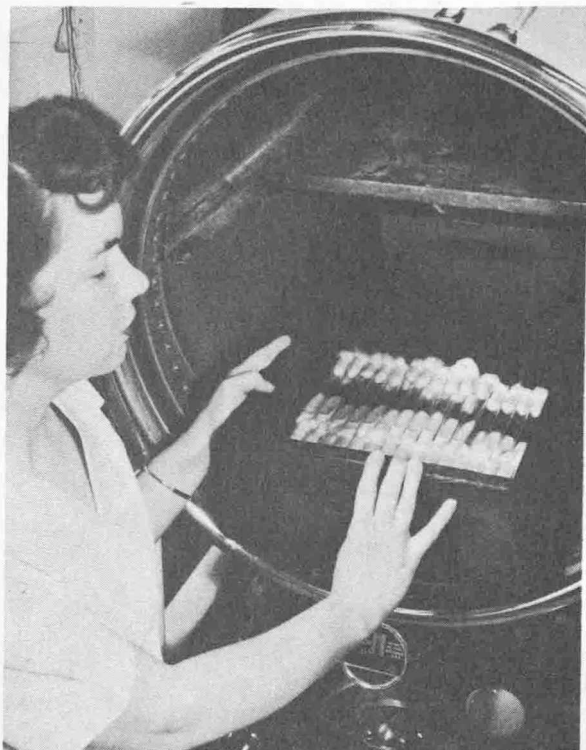
5 The flask is shaken to emulsify.



6 The mixture is filtered through gauze into a dispenser. This removes all unmixed egg white.



7 It is then dispersed into tubes in the amount necessary to make a slant of about $1\frac{1}{2}$ inches (4-5 cc.).



8

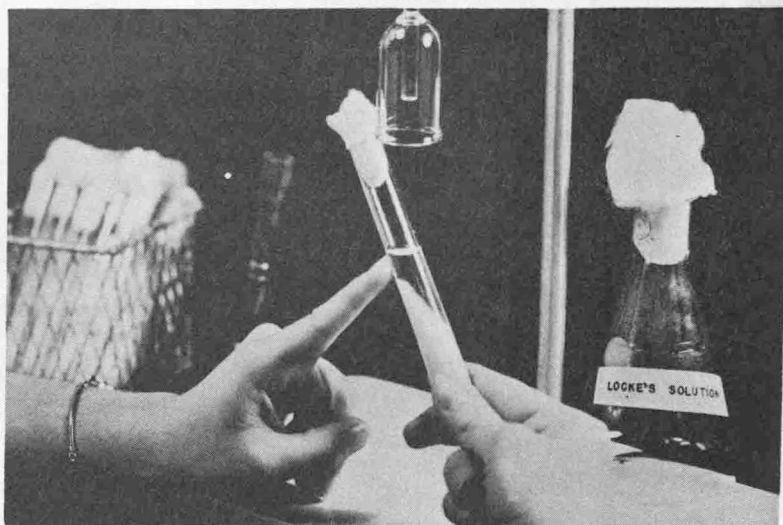
INSPISSATION OF MEDIUM

The tubes are placed in the chamber of the autoclave in the desired slanting position. Wooden boxes of swamp cypress (or any wood which does not warp easily in live steam) help to maintain an even temperature during inspissation. To inspissate in an autoclave without a jacket, close all exhaust valves and allow the steam to enter as fast as possible until the pressure of the trapped air and steam in the chamber registers 15 pounds. Hold at this pressure for 15 minutes. Cut off steam supply and allow pressure to drop gradually, keeping all outlets tightly closed to prevent bubbling.

9

ADDITION OF THE OVERLAY AND STERILIZATION OF THE MEDIUM

When the inspissated slants are cold, cover to a depth of 1 cm. with sterile Locke's solution. The medium is then sterilized in the autoclave at 121.6°C. (15 lbs.) for 15 minutes. The pressure is allowed to drop gradually. The medium is tested for sterility by incubating at 37°C. for 24 hours. Each tube is then examined grossly for bacterial growth. The sterile medium is stored in the refrigerator until needed.



A continuation of this discussion "Inoculation of Boeck and Drbohlav's Medium" will appear in the January-February-March issue of the CDC Bulletin.